PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Norihisa NAKAGAWA et al. Attn: PCT Branch

Application No. New U.S. National Stage of PCT/JP2004/018081

Filed: June 1, 2006 Docket No.: 128241

For: AIR-FUEL RATIO CONTROL APPARATUS OF INTERNAL COMBUSTION ENGINE

TRANSMITTAL OF THE ANNEXES TO THE INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Attached hereto is a translation of the annexes to the International Preliminary Examination Report (Form PCT/IPEA/409). The attached translated material replaces claims 1-5.

Respectfully submitted,

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CLAIMS

1. (amended) An air-fuel ratio control apparatus of an internal combustion engine comprising:

a first exhaust gas purifying catalyst disposed in an exhaust passage;

a second exhaust gas purifying catalyst disposed downstream of the first exhaust gas purifying catalyst;

first air-fuel ratio acquiring means provided upstream of the first exhaust gas purifying catalyst, for acquiring an air-fuel ratio of exhaust gas;

second air-fuel ratio acquiring means for acquiring an air-fuel ratio of the exhaust gas flowing into the second exhaust gas purifying catalyst; and

air-fuel ratio controlling means for controlling an air-fuel ratio in the internal combustion engine according to the air-fuel ratio acquired by the first air-fuel ratio acquiring means and the air-fuel ratio acquired by the second air-fuel ratio acquiring means,

wherein the air-fuel ratio controlling means comprises: lean control means for controlling an air-fuel ratio in the internal combustion engine until the second exhaust gas purifying catalyst becomes lean after completion of a fuel quantity increasing operation of the internal combustion engine; and intermediate lean control means for performing, at least one time, control to change the air-fuel ratio in the internal combustion engine to a lean air-fuel ratio within the range enough to make the first exhaust gas purifying catalyst lean and not

enough to make the second exhaust gas purifying catalyst lean between the fuel quantity increasing operation and the air-fuel ratio control by the lean control means, and performs an air-fuel ratio control by the lean control means during an idle operation of the internal combustion engine.

2. (canceled)

3. The air-fuel ratio control apparatus of the internal combustion engine according to claim 1 or 2, wherein the air-fuel ratio controlling means performs an air-fuel ratio control by the intermediate lean control means during a substantially steady operation in a partial load region of the internal combustion engine.

4. The air-fuel ratio control apparatus of the internal combustion engine according to any one of claims 1 to 3, wherein the intermediate lean control means makes the air-fuel ratio in the internal combustion engine change to a lean air-fuel ratio by the smaller amount than the lean control means.

5. The air-fuel ratio control apparatus of the internal combustion engine according to any one of claims 1 to 4, wherein the air-fuel ratio controlling means does not perform any air-fuel ratio control by the lean control means and the intermediate